

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

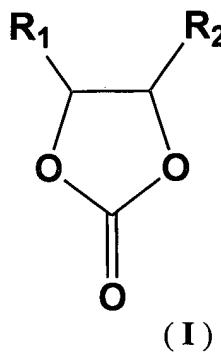
Claims 1-15 (canceled).

Claim 16 (new). A composition for forming a polyurethane polymeric composition comprising:

- (a) one or more polymerisable organic materials having at least one cyclocarbonate group;
- (b) at least one nano-clay having a platelet thickness of less than 25 Å and an aspect ratio higher than 10 or a nanocomposite formed from the nano-clay; and
- (c) at least one hardener.

Claim 17 (new). The composition as claimed in claim 16, which further includes at least one polymerisable organic material having at least one epoxy group.

Claim 18 (new). The composition as claimed in claim 16, wherein component (a) is a compound of formula I:



wherein R₁ and R₂ are each independently hydrogen, or a linear or branched, or cyclic, saturated or unsaturated group optionally substituted with one or more heteroatoms, oxygen-containing groups or nitrogen-containing groups.

Claim 19 (new). The composition as claimed in claim 16, wherein component (b) is present in an amount of from 0.1 to 95% w/w based on the total weight of the composition.

Claim 20 (new). The composition as claimed in claim 19, wherein component (b) is present in an amount of from 4 to 20% w/w based on the total weight of the composition.

Claim 21 (new). The composition as claimed in claim 16, wherein the nano-clay has aspect ratio higher than 50.

Claim 22 (new). The composition as claimed in claim 16, wherein the thickness of the nano-clay platelets is less than 10 Å.

Claim 23 (new). The composition as claimed in claim 16, wherein the nano-clay is a natural or modified bentonite, saponite, hectorite, montmorillonite or synthetic mica fluoride.

Claim 24 (new). The composition as claimed in claim 23, wherein the nano-clay is a natural or modified montmorillonite.

Claim 25 (new). The composition as claimed in claim 16, additionally containing one or more reinforcement fibres and/or one or more toughening agents.

Claim 26 (new). The composition as claimed in claim 16, additionally containing one or more fillers and/or one or more pigments.

Claim 27 (new). The composition as claimed in claim 16, additionally containing one or more drying agents, and/or one or more stabilizers, and/or one or more surface tension modifiers.

Claim 28 (new). The composition as claimed in claim 16, additionally containing a solvent or a solvent mixture.

Claim 29 (new). The composition as claimed in claim 16, additionally containing a diluent or a diluent mixture.

Claim 30 (new). A method of forming a polyurethane-based polymer comprising the steps of:

- (a) mixing one or more polymerisable organic materials having at least one cyclocarbonate group with at least one natural or synthetic, modified or unmodified nano-clay having a platelet thickness of less than 25 Å and an aspect ratio higher than 10 or a nanocomposite formed from the nano-clay; with at least one hardener to form a composition; and
- (b) curing the composition to form the polyurethane-based polymer.